

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 August 2005 (04.08.2005)

PCT

(10) International Publication Number
WO 2005/071066 A1

(51) International Patent Classification⁷: **C12N 5/06**,
A61P 3/10, A61K 35/50

(21) International Application Number:
PCT/US2005/002112

(22) International Filing Date: 24 January 2005 (24.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/538,660 23 January 2004 (23.01.2004) US

(71) Applicant (for all designated States except US): **BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM** [US/US]; 201 West 7th St., Austin, TX 78701 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **COPLAND, John, A.** [US/US]; 181 Greencrest Drive, Ponte Vedra Beach, FL 32082 (US). **URBAN, Randall, J.** [US/US]; 1210 Merriewood Dr., Friendswood, TX 77546 (US). **BODENBURG, Yvonne, H.** [US/US]; 3026 Crest Drive, Dickinson, TX 77539 (US).

(74) Agent: **SHISHIMA, Gina, N.**; Fulbright & Jaworski, LLP, 600 Congress Avenue, Suite 2400, Austin, TX 78701 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND COMPOSITIONS FOR PREPARING PANCREATIC INSULIN SECRETING CELLS

(57) Abstract: The present invention concerns the use of transdifferentiated cells to treat pancreatic diseases. More particularly, it provides methods for the culture and transdifferentiation of human cord blood cells into insulin-secreting cells. It also concerns the endocrine hormones, such as insulin, produced by such cultures, and the use of the transdifferentiated cells in the treatment of diabetes.



WO 2005/071066 A1